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WILSON K. NORTON

TWO SUCH CLAWS ARE ALL THAT REMAIN OF A COLOSSAL CEYLON LION

In the center of the Indian Ocean island (Bulletin No. 5), Sigiriya, the Lion Rock citadel, rises 400 feet high out of the jungle. To its impregnable heights retired King Kasyapa for safety after killing his own father. The murdered ruler had built the great "tank" of Kalawewa, a fifth century irrigation reservoir which amazes modern engineers.

Bulletin No. 1, November 14, 1949

Fishwheel, Gold-Rush Town, New Alaska Name

HOW towns are born and named was demonstrated by the recent "gold rush" in Alaska. A man dismantled his fishwheel for the winter and reported finding pea-sized gold nuggets in the device widely used on the Yukon River for catching salmon (illustration, next page).

In conditions similar to those of 1848 in California when John Marshall discovered the yellow metal in Sutter's mill, the cry of "Gold!" rang out. Sourdoughs and tenderfeet rushed to the spot and almost overnight a tent city miles long sprang up along the Yukon between Fort Yukon and Circle. Within three days, newspaper and radio men were familiarly calling the new town Fishwheel.

Recent Strike in Dreary Yukon Flats Section

Fishwheel is 135 air miles northwest of Fairbanks, Alaska's pace-setting metropolis of 8,500 inhabitants. The community mushroomed far inland from the Yukon's mouth on Bering Sea. The storied Klondike goldfield in Canada's Yukon Territory is 330 miles farther upstream.

Fort Yukon and Circle are 1,030 and 1,100 miles up "Alaska's Mississippi," respectively. Both are on the dreary 300-mile stretch of the river known as Yukon Flats, where the Yukon spreads ten to twenty miles wide, splitting into many slow-meandering channels that create hundreds of drab sandpit islands. One of them—Discovery Island—became an airport during the height of the short-lived rush.

Four years before the Klondike boom in 1898, "Circle City" sprang into being when gold nuggets were found in Mastodon Creek. It soon claimed to be the largest log-cabin village in the world. Came the Klondike stampede and Circle was rapidly deserted. The Fairbanks rush in 1902 completed the job, and Circle's many crumbling cabins in time served as firewood for its permanent population of about 50 Indians.

But the village retains some distinctions. It is the terminus of the Steese Highway running 163 miles northeastward from Fairbanks. As such it is the northernmost settlement in Alaska reached by automobile road and the only Yukon River point in Alaska served by highway.

Fort Yukon Largest Indian Village on River

The village took its name because the 1894 prospectors thought it to be just about on the Arctic Circle. Actually it lies 50 air miles south. Fort Yukon better deserves the name since it lies one mile north of the Arctic Circle on the Yukon's northernmost bend.

Fort Yukon, at the mouth of the Porcupine River, has many Indian cabins and a few white settlers' homes. Its population of about 400 makes it the largest Indian village on the Yukon River. Besides its school and church, it has a small hospital which has done much for native welfare.

Long a headquarters of the Hudson's Bay Company, it is widely known as a fur-trading center. The oldest English-speaking settlement

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EDWIN L. WISHERD

FROM THE CHIMNEYLIKE ROCKS OF THE PINNACLE, TRAVELERS LOOK DOWN ON CUMBERLAND GAP, DANIEL BOONE'S ROUTE TO KENTUCKY

The town of Cumberland Gap, Tennessee, huddles 1,000 feet below at the point where the Volunteer State adjoins both Virginia and Kentucky. The slopes of the Big Black Mountains, extending from here to the northeast, are often frequented by local folk gathering galax leaves (Bulletin No. 2).

Bulletin No. 2, November 14, 1949

Galax Leaves Make Southern Hiking Pay

THE season of greatest use for galax leaves is ahead, but the harvest season ends with the approach of cold weather. During torrid summer days southern Appalachian Mountain folk spend time in their cool highland wildwood and make it pay.

Virginians and North Carolinians especially have found the gathering of galax leaves profitable. They have developed a sort of free-for-all wildlife industry they call "galacking." It keeps whole families clambering over their back-yard Appalachians during spring and summer months.

Wreaths Take Many Leaves

Galacking is just mountaineer jargon for gathering the shiny, wavy-edged, heart-shaped leaves of the galax plant. Florists use the leaves year-round as background green in displays and bouquets. Housewives put them on table and mantel. But yuletide wreaths create the biggest demand.

Cities like Boston, Philadelphia, Chicago, and New York take the leaves by the thousands, and many others find their way into the retail markets of smaller towns and rural districts.

Although a highly seasonal business, galacking in some respects is perhaps the most pleasant and carefree of pursuits. Armed with a few tow sacks, the picker is strictly his own boss. He may work at whatever pace he wishes and gather as much as he likes.

Seldom, if ever, need he fret over competition, or fear that the supplies are running out. Stripping the plant of its leaves does not kill it. It grows in vast quantities over a large region year after year. An experienced picker with a good back can collect 10,000 leaves in a day, but oldsters and youngsters alike can join in the work.

The market usually absorbs all the leaves that are picked. The average mountaineer takes his forest gleanings to the nearest storekeeper for groceries or cash. This middleman then ships the supply to a broker, who will either sell it to the market or put it in cold storage until the demand improves.

Competes with Ivy

Galacking is a southern Appalachian monopoly. The plant grows only on mountain slopes (illustration, inside cover) from Virginia to Georgia. Galax, Virginia, derived its name from the plant.

Galax thrives best in a shady spot rich in cool, moist soil. When in bloom, from May through July, the leaves are a bright green, but as the plant ripens and frosts appear they turn a brilliant bronze.

If chemically treated the leaves retain their bright colors and shapes for weeks. Because of their keeping qualities, easy handling, and long stems, they have to some extent replaced ivy leaves as decorations in parts of the country.

The leaves were first introduced into the florist trade in 1890. Since plants under cultivation might average less than one perfect leaf, it is

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in Alaska, it was founded a century ago by agreement between the Hudson's Bay Company and the Russian American Company twenty years before the United States bought Alaska from Russia.

Today most gold taken in the Fairbanks area is mined by giant dredges larger than the average two-story house. Dredging outfits cost big money and shifts keep them busy twenty-four hours a day from April to October to take full advantage of the brief summer thaw.

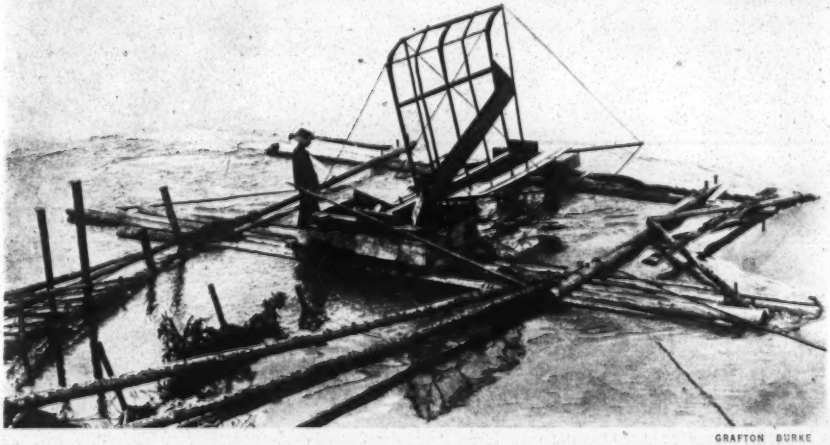
Small legions of prospectors still seek their big strike with tents, picks, and gold pans, however. "Ramblin Sam" Gamblin was one of the first to arrive at Fishwheel. He and other veterans of former rushes calmly set up warm camps and methodically went about the business of finding "color" with their placer pans. Color is tiny flakes of yellow indicating the presence of gold.

After trying many spots, the old timers staked their claims. They returned to their stove-heated tents when the 15-below weather got too penetrating. They smiled at arriving tenderfeet, neat and clean in their brand-new clothes, rushing pell-mell to the edge of Fishwheel to stake the first unclaimed land they saw. Ten days after the first "strike," the rush had died out, as little gold had been found.

NOTE: Fort Yukon and Circle are shown on the National Geographic Society's map of Canada, Alaska & Greenland. Write the Society's headquarters, Washington 6, D. C., for a price list of maps.

For further information, see "Milestones in My Arctic Journeys," in the *National Geographic Magazine* for October, 1949; "Servicing Arctic Bases," May, 1946*; and "Today on 'The Yukon Trail of 1898'," July, 1930. *(Issues marked with an asterisk are included in a special list of Magazines available to teachers in packets of ten for $1.00.)*

See also, in the GEOGRAPHIC SCHOOL BULLETINS, October 10, 1949, "Whitehorse to Be Stage for Arctic Maneuvers."



GRAFTON BURKE

FROM SUCH A CONTRAPTION WAS NAMED THE METEORIC TOWN OF FISHWHEEL, ALASKA

The two-bladed wheel revolves with the current to scoop up salmon and slide them down the trough into a waiting box. Fishwheels were invented during the Fairbanks bonanza of 1902 and gave their name to the tent town which recently sprang up on the site of Alaska's 1949 "gold rush."

British Antarctic Scientists Await Rescue

ELEVEN men are waiting and watching, on an icebound island off the deep-freeze continent of Antarctica, for their ship to come in.

The ship now on her long way to the South Polar regions is the British *John Biscoe*, which will try once more during the coming "moderate season" to pick up scientists left for nearly three years on Stonington Island in Marguerite Bay, off Palmer Peninsula (Graham Land). This marooned party is one of a number of research and exploration teams sent out by the British government's Falkland Islands Dependencies Survey.

British Researchers in Area Since 1943

The Stonington group, stationed at the farthest-south base of the survey, was due for relief early in 1949, after two years' duty. Unusually severe ice-pack conditions at the time, however, prevented the relief expedition from getting through. The present try, to be made months hence, is fortified by two ski-equipped planes for alternative air rescue.

Although British expeditions had explored and mapped the general area before World War II, the Falkland Islands Dependencies Survey (FIDS) set up the first permanent research stations in 1943. As the name indicates, the area involved covers territories grouped administratively with the Falklands, which lie east of the South American tip.

The dependencies themselves are bleak and wind-swept patches of land scattered southeast and south of the main Falklands to the Antarctica mainland. They include the island groups of South Georgia, South Sandwich, South Orkney, and South Shetland, plus the Antarctica mainland peninsula of Graham Land with its fringing islands.

Through the 1948-49 winter seven British bases were maintained at various points in the dependencies. Among their personnel were meteorologists, geologists, biologists, and surveyors, whose findings are now being correlated with others for the unfolding picture of conditions in this long blank Antarctic spot.

Ice-free Streams Discovered

Through the years, valuable material on temperatures, winds, and other weather conditions has been obtained. Mineral samples have been collected. A seal count is being made, and a study of penguins carried on at all bases (illustration, next page).

In the field of exploration, thousands of miles of Antarctic wastes have been mapped. Ice-free streams and lakes have been discovered in the heart of the frozen lands.

In 1947-48, an American party which had established a temporary base on Stonington Island joined the British stationed there for a sledging and air expedition that covered considerable territory and added much detail to maps.

The United States has made no formal claims in this or other parts of Antarctica, in spite of extensive research and exploration. Argentina

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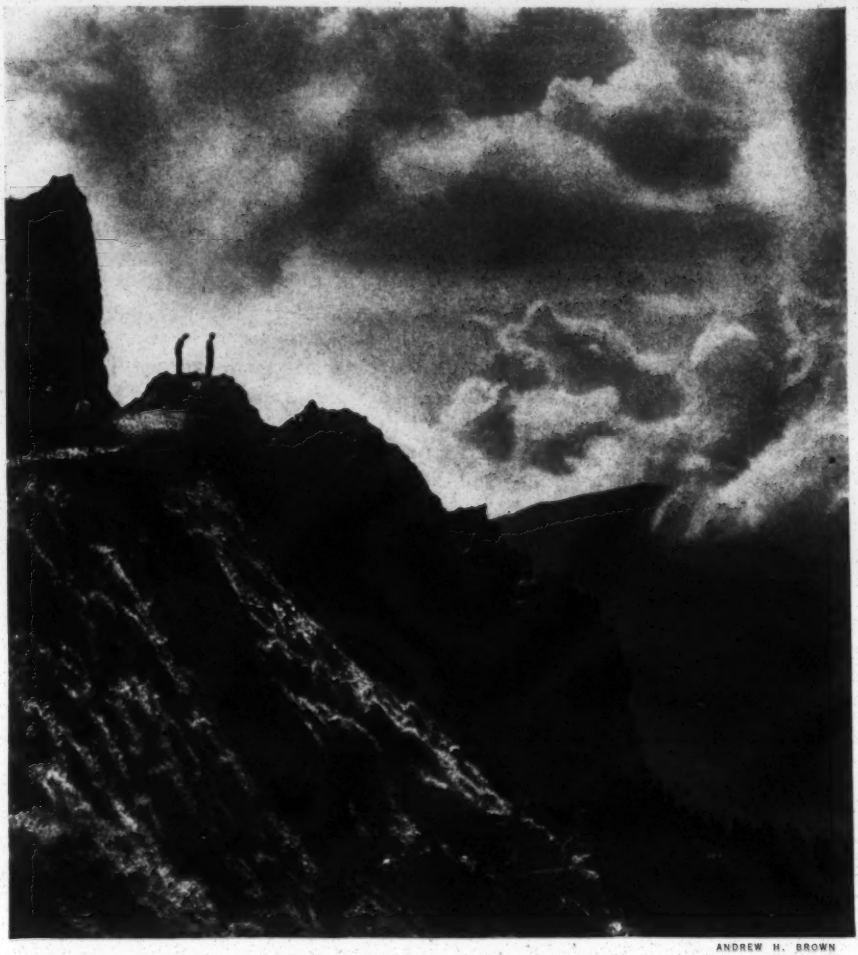
not considered profitable to grow galax on a commercial scale. Any speck or wormhole renders the leaves unfit for marketing. Mountain folk say the plant does best in a wild state out in the woods, anyway.

NOTE: Regions where galax grows may be located on the Society's map of the Southeastern States.

For additional information about the locality, see "Skyline Trail from Maine to Georgia," in the *National Geographic Magazine* for August, 1949; "Appalachian Valley Pilgrimage," July, 1949; "Home Folk Around Historic Cumberland Gap," December, 1943; "Tarheelia on Parade," August, 1941; "Rambling Around the Roof of Eastern America," August, 1936; and "Patriotic Pilgrimage to Eastern National Parks," June, 1934.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, May 10, 1948, "Appalachian Hikers to Hold June Jamboree"; "Shenandoah, Where a Highway Grazes the Sky," April 28, 1947; and "Great Smokies, Roof Top of Eastern America," November 11, 1946.



ANDREW H. BROWN

BILLOWING GRANDEUR OF MOUNTAIN AND CLOUD OFTEN GREETS THE HIKER OR "GALACKER"

Hikers on the Appalachian Trail stand spellbound at Charlies Bunion, a lofty viewpoint on the North Carolina-Tennessee border named for a guide's sore toe. Native hikers, out for profit rather than sport, range over such slopes in the search for galax leaves.

Ancient Fans Still Stir a Cooling Breeze

OF WHAT avail milady's fan, now that electricity whirs blades to create an artificial breeze?

For stirring up a cooling zephyr few people would prefer the dainty folding fans of 17th century Europe to the automatic, motor-driven appliances of 20th century America.

Yet the fluttering hand fan which dates back more than 4,000 years is far from antiquated. In many lands it still plays an important part in dress and custom, dance and drama, and even in commerce and cookery.

Flames Are Fanned for Cooking

In Japan the fan is an important property in everyday life, and has been so for hundreds of years. A special type was the battle fan, used as a signaling device. During the tea ceremonies little cakes were passed on the tea fan, a simplified style having only three sticks. The fan could not be used for mere cooling purposes on these very formal occasions. Dancers and wrestlers performed with fans; women wore small ones stuck in their hair as ornaments.

In North Africa and Italy country housewives use fans to drive air into crude charcoal stoves. This stimulates the flame on which they cook the family meal. The more vigorous the fanning, the more intense the heat.

Puerto Rican women have inherited from their Spanish grandmothers the custom of carrying fans as an addition to their costumes. These ornamental accessories are inlaid, carved, and sometimes jeweled. They may have sticks of ebony, ivory, sandalwood, mother-of-pearl, or tortoise shell, as well as plain wood.

On the island of Bali in the far-western Pacific east of Java, dancing girls ornament their costumes and accent their movements with fans. The Chinese, who have used and fashioned fans for thousands of years, have special ones for spring, summer, and autumn.

Leaves and Feathers Were Early Material

The Chinese are generally believed to have been the first to use fans. People waved them to blow up fires, dust furniture, winnow grain, cool food, and shade their eyes from the sun. Nanking, Soochow, Hangchow, and Shanghai were noted fan-making centers.

The earliest known uses of the fan were as a winnower of grains and as a bellows for fire. The screen type, consisting of a handle and a rigid mount, has been used by all peoples down through the ages. In very early times fans were made of palm leaves or pheasant and peacock feathers. The Chinese are said to have used fans about 3000 B.C.

The most usual style in modern times is the folding fan. This is made up of a number of slender sticks (illustration, next page) fastened together at one end so that they can spread out to form a semicircle at the other. These sticks are held together at the outer end by some such material as silk, parchment, lace, or—for cheaper fans—paper.

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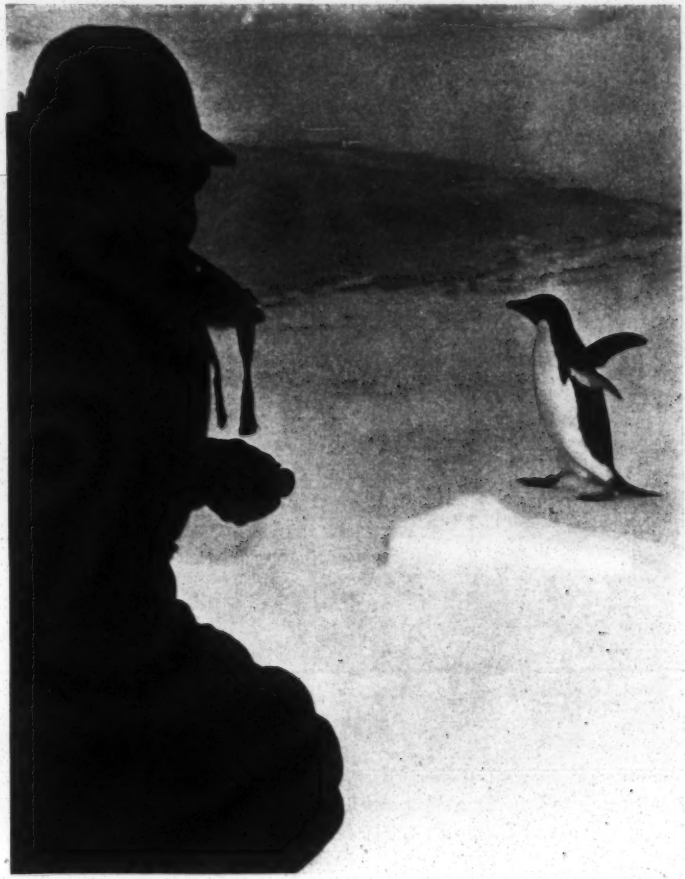
and Chile claim overlapping areas of the Falkland Dependencies, which have been under British sovereignty since 1908. Argentina also has a long-standing dispute with Britain over the main Falkland Islands, held for more than a century by the British.

According to reports, mineral discoveries in the Falkland Dependencies have so far proved disappointing. The surrounding seas, however, are of great economic value as the world's last major whaling field.

NOTE: The Antarctic regions may be located on the Society's map of the Northern and Southern Hemispheres.

For additional information, see "Our Navy Explores Antarctica," in the *National Geographic Magazine* for October, 1947; "My Four Antarctic Expeditions," July, 1939; "Exploring the Ice Age in Antarctica," October, 1935; and "Conquest of Antarctica by Air," August, 1930.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, October 27, 1947, "Byrd Reports on Navy Antarctic Survey"; and "Byrd Again Leads Expedition to Antarctica," December 16, 1946.



U. S. NAVY OFFICIAL

ANTARCTIC EXPLORERS ARE INVARIABLY CAPTIVATED BY THE COMICAL "NATIVES"

This expedition member holds out candy, hoping to coax an Adélie penguin nearer. Study of the curious "bird-fish" is among the many scientific pursuits of the English researchers stationed at several Antarctic posts.

Dam Project in Ceylon Reclaims Lost Land

THE long arm of American "know-how" is reaching across the Pacific to push back the jungle in the tropical isle of Ceylon, off India's coast (map, next page).

Under the direction of a San Francisco construction firm, trucks, dredges, and crushers are clearing the way for a big dam across the Gal Oya basin, in eastern Ceylon. The structure will provide water for crops, furnish power for potential industry, and help control floods.

Sinhalese Arrived in 500 B.C.

This multi-purpose dam is part of the long-term economic program of the Ceylon government, which was promoted to British dominion status early in 1948. It is a work that looks to the future. But it also recalls a vanished past, when ancient kings of Ceylon built massive irrigation systems for a way of life that survived through many centuries.

The barefoot, sarong-clad Sinhalese (Ceylonese) who now man the machines to harness the Gal Oya (oya means river) are the descendants of Indian invaders who first overran Ceylon around 500 B.C.

Establishing their kingdom in the green and beautiful island they knew as Lanka, "The Shining Land," the conquerors gradually developed an advanced agrarian civilization, dependent on the supply and control of water throughout the dry and wet seasons.

The ruins of their dams, sluices, and reservoirs—or tanks as they are called—may be seen scattered over the drier north and east sections of Ceylon. A few of the old works are still in use. Some have been restored. Several lie in the Gal Oya vicinity.

Despite successive waves of Indian invaders, the Lanka kings long managed to maintain a flourishing, paddy-rice economy. They built immense palaces and art works (illustration, cover). But eventually they were forced into the interior hills. The irrigation systems fell into disrepair. The stagnant reservoirs bred malaria. Slowly the jungle crept over the once-populous countryside and abandoned royal cities.

More Food, Manufactures

Today's island leaders expect the new dam, along with the others planned for the future, to reclaim the lost regions. They hope to cut down current heavy imports of sugar, and of rice, the islanders' staple food. At the same time, irrigated farm plots would be provided for landless Ceylon families.

Another major objective of the dam-building program is to obtain electric power for a small-factory system that will add diversity to the now overwhelmingly agricultural economy. Seven-eighths of Ceylon's people, whose numbers now approach 7,000,000, live in small agricultural communities.

The present mainstay of the island's economy is its plantations raising tea, rubber, and coconuts. They are situated for the most part in the western hills and moist lowlands of the southwest. Ceylon's chief mineral

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Very popular in European courts during the 17th and 18th centuries, the folding fan was invented in Japan about 670 A.D. It was used in China in the 10th century and came to Europe early in the 16th, at the time when the Portuguese explorers were introducing the wares of the Orient to Western nations.

During their European heydey fans served many purposes. Long-handled feather fans, common before the introduction of the folding type, were sometimes used on refractory children or erring husbands. Court ladies found the folding fan an effective weapon in love and coquetry.

One of the most beautiful styles is the brisé fan. This is fashioned entirely of sticks and has no mount. The sticks are beautifully carved and widen at the outer ends where they are fastened together by a ribbon run through slits.

Toward the end of the 18th century cheap fans with paper mounts appeared. Some of these were printed with pictures of current events such as the 1784 balloon ascension in France. In modern times fans are often used for advertising.

The fan's place in literature includes an essay that Joseph Addison wrote for *The Spectator*, and a play by Oscar Wilde. The fact that this play has appeared as a motion picture may, or may not, account for the present promotion of fans as a current fashion—fans for gifts, fans for decoration, or fans for fun.

KIYOSHI SAKAMOTO

A JAPANESE FAN-MAKER STRIPES THE GROUND WITH THE SKELETONS OF HIS WARES

Fans enough to stir up a miniature whirlwind will materialize from these rows of extended sticks spread on the ground to dry. They are fastened together at one end with a piece of metal and a knowing shake will spread them wide to "fan" the air. Fans are so widely used that they have given phrases to the language. "Fan-shaped" is an easily recognizable description of any number of objects which spread out in a semicircle like the rays of the sun at the horizon.

wealth is in graphite deposits. Also gem pits yield sapphires, rubies, garnets, and other precious and semiprecious stones.

NOTE: Ceylon is shown on the Society's map of India and Burma.

For additional information, see "Ceylon, Island of the 'Lion People'," in the *National Geographic Magazine* for July, 1948; "Sigiriya, 'A Fortress in the Sky'," November, 1946*; and "Perahera Processions of Ceylon," July, 1932.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, December 6, 1948, "Ceylon, Former Crown Colony, Now Dominion"; and "Ceylon in Transition to British Dominion," October 20, 1947.

CEYLON IS SHAPED LIKE A TEARDROP FALLING FROM INDIA

Wet-season rain stored for dry-season irrigation is the key to Ceylon's agriculture. The tiny lakes scattered over the north and east parts of the island are "tanks," remnants of reservoirs built centuries ago. A modern project has been started on the Gal Oya, a river which flows from near Bibile (east of Kandy) to the east coast near Akkaraipattu.

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